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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,265

04/03/2006

Nicolas Droger

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EXAMINER

NILAND, PATRICK DENNIS

ART UNIT

PAPER NUMBER

1796

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,265	Applicant(s) DROGER ET AL.	
	Examiner Patrick D. Niland	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39 and 41-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39 and 41-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The amendment of 9/22/08 has been entered. Claims 39 and 41-82 are pending.
2. The applicant's arguments regarding piecemeal prosecution are not well taken. The applicant has amended the application requiring different considerations. The applicant has submitted claims that are barely described in the enabling specification and contain a component that is rarely recited in the prior art based on the examiner's search of the term "antiplasticizing additive" with such additives being barely described in the instant specification. MPEP 707.07(g) states "Piecemeal examination should be avoided **as much as possible**." The examiner avoided it as much as possible in the instant situation. This section of the MPEP does not relieve the examiner of his other duties including considerations under MPEP 2112. The following new grounds of rejection is regretted in view of the applicant's complaint but was unavoidably made until now because the solicitor's office gave the training for this rejection subsequent to the last office action.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 39 and 41-82 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix, does not reasonably provide enablement for all of the combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix encompassed by the instant claims. The specification does not enable any person skilled

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in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A. The instant claims are directed to combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix that do not specifically claim the particular thermoset plastic materials specifically and precisely, do not specifically claim the particular antiplasticizing additives claimed specifically and precisely, or do not specifically claim both the particular thermoset plastic materials specifically and precisely and the particular antiplasticizing additives claimed specifically and precisely. Therefore the claims encompass all possible combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix. The instantly claimed combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix read on an infinite number of compositions resulting from the potentially infinite number of combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix which can be made from the potentially infinite number of thermoset plastic materials and the potentially infinite number of antiplasticizing additives. In re Wands has 8 criteria, (MPEP 2164.01(a)), as shown below. It is noted that even within the broadly recited polythiourethane matrix and polyepisulfide matrix there exist a potentially infinite number of polymers having an infinite number of characteristics and requiring an infinite number of considerations as to what will antiplasticize them and which of these polymers the few specified antiplasticizing additives will antiplasticize, as defined by the applicant.

(A)The breadth of the claims;

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- (B)The nature of the invention;
- (C)The state of the prior art;
- (D)The level of one of ordinary skill;
- (E)The level of predictability in the art;
- (F)The amount of direction provided by the inventor;
- (G)The existence of working examples; and
- (H)The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

It is noted that the instant claims read on all potential combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix, each component of which encompasses an infinite number of compounds and polymers (Wands factor A). The specification does not describe how to make all such combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix, all such antiplasticizing additives, or how to select those thermoset plastic materials and antiplasticizing additives claimed from the infinite list thereof which will function as required in the instant inventions (Wands factors F, G). It would require an infinite amount of experimentation to determine how to make all of the combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix encompassed by the instant claims and another infinite amount of experimentation to determine which of these combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix would function in the instantly claimed invention as required (Wands factor H). Chemistry is an unpredictable

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art (Wands factor E). To make the instant situation more unpredictable, the term “antiplasticizing additive” and variants thereof are not often used in the art. Thus, it is difficult or impossible to figure out all of the combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix encompassed by the instant claims let alone make them. The ordinary skilled artisan has not imagined nor figured out how to make all of the combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix, all of the thermoset plastic matrices, all of the antiplasticizing additives, all of the polythiourethane matrices, or all of the polyeposulfide matrices encompassed by the instant claim yet (Wands factors C, D, E, F, G, and H). The enabling disclosure is not commensurate with the full scope of the claimed combinations of thermoset plastic materials and antiplasticizing additives that do not react with said matrix.

See *Sitrick v Dreamworks, LLC* (Fed Cir, 2007-1174, 2/1/2008), particularly

“Before MICHEL, Chief Judge, RADER and MOORE, Circuit Judges.
MOORE, Circuit Judge.

112(1) Enablement - The enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation

We review the grant of summary judgment de novo. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1377 (Fed. Cir. 2007). Summary judgment is appropriate “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(c). Whether a claim satisfies the enablement requirement of 35 U.S.C. § 112, ¶ 1 is a question of law, reviewed de novo, based on underlying facts, which are reviewed for clear error. *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1238-39 (Fed. Cir. 2003). The evidentiary burden to show facts supporting a conclusion of invalidity is one of clear and convincing evidence because a patent is presumed valid. *Id.* The “enablement

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requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation.” Id. at 1244.

112(1) Enablement - The full scope of the claimed invention must be enabled.
A patentee who chooses broad claim language must make sure the broad claims are fully enabled.

The full scope of the claimed invention must be enabled. See Auto. Techs. Int’l, Inc. v. BMW of N. Am., Inc., 501 F.3d 1274, 1285 (Fed. Cir. 2007). The rationale for this statutory requirement is straightforward. Enabling the full scope of each claim is “part of the quid pro quo of the patent bargain.” AK Steel, 344 F.3d at 1244. A patentee who chooses broad claim language must make sure the broad claims are fully enabled. “The scope of the claims must be less than or equal to the scope of the enablement” to “ensure[] that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims.” Nat’l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc., 166 F.3d 1190, 1195-96 (Fed. Cir. 1999).”

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 39, 47-51, 58, 62-63, and 73-75 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5525654 Podola et al..

Podola et al. discloses a thermoset plastic material comprising a three dimensional matrix containing sulfur atoms, after their sealant cures, and containing a diurethane which falls within

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the scope of the instantly claimed antiplasticizers of the instant claims. The reaction of the mercaptoalkyl alkoxysilanes, of column 4, lines 30-59 and column 5, lines 1-3, particularly noting “preferably”, with the disclosed NCO groups makes the instantly claimed thiourethane groups resulting in polythiourethanes. The plasticizers of the patentee, column 5, line 42-67; column 6, lines 1-22; column 7, lines 1-9; column 8, lines 11-35; column 9, lines 36-37, which fall within the scope of the carbonyl containing compound of claim 51. The patentee is silent regarding the parameters of the instant claims 47-50. The PTO has no facilities to make experimental determinations. The burden is therefore on the patentee to show that the compositions discussed above do not necessarily inherently have the properties of the instant claims 47-50 and 73-75 because the components of the cured product of the patentee are otherwise those of the instant claims and would therefore be expected to necessarily and inherently possess the instantly claimed parameters of the instant claims 47-50 and 73-75. See MPEP 2112. Column 6, lines 22-29 falls within the scope of the instant claim 62-63. See the abstract; column 2, lines 28 to column 14, line 56, particularly those sections discussed above.

The applicant’s arguments in this regard have been fully considered. However, the patentee combines the instantly claimed ingredients with sufficient specificity so as to anticipate the instantly claimed ingredient combinations. Arguments regarding “plasticizer” are noted. However, the instantly claimed combinations of ingredients must necessarily and inherently give the instantly claimed antiplasticization because the ingredients this is attributed to are present. There is no probative evidence to the contrary. Even if it is shown that the combinations of ingredients of the patentee that are those ingredients of the instant claims do not give

antiplasticization, this will be taken as evidence supporting the above rejection under 35 USC 112 first paragraph. For the above reasons, this rejection is maintained.

8. Claims 39, 47-51, 58, 62-63, and 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5525654 Podola et al..

Podola et al. discloses a thermoset plastic material comprising a three dimensional matrix containing sulfur atoms, after their sealant cures, and containing a diurethane which falls within the scope of the instantly claimed antiplasticizers of the instant claims. The reaction of the mercaptoalkyl alkoxysilanes, of column 4, lines 30-59 and column 5, lines 1-3, particularly noting “preferably”, with the disclosed NCO groups makes the instantly claimed thiourethane groups resulting in polythiourethanes. The plasticizers of the patentee, column 5, line 42-67; column 6, lines 1-22; column 7, lines 1-9; column 8, lines 11-35; column 9, lines 36-37, which fall within the scope of the carbonyl containing compound of claim 51. The patentee is silent regarding the parameters of the instant claims 47-50. The PTO has no facilities to make experimental determinations. The burden is therefore on the patentee to show that the compositions discussed above do not necessarily inherently have the properties of the instant claims 47-50 and 73-75 because the components of the cured product of the patentee are otherwise those of the instant claims and would therefore be expected to necessarily and inherently possess the instantly claimed parameters of the instant claims 47-50 and 73-75. See MPEP 2112. Column 6, lines 22-29 falls within the scope of the instant claim 62-63. See the abstract; column 2, lines 28 to column 14, line 56, particularly those sections discussed above.

It would have at least been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use those combinations of ingredients and amounts thereof

disclosed by the patentee that fall within the scope of the instant claims because they are disclosed by the patentee and would have been expected to give the matrices having the properties of those of the patentee.

The applicant's arguments in this regard have been fully considered. However, the patentee combines the instantly claimed ingredients with sufficient specificity so as to anticipate the instantly claimed ingredient combinations. Arguments regarding "plasticizer" are noted.

However, the instantly claimed combinations of ingredients must necessarily and inherently give the instantly claimed antiplasticization because the ingredients this is attributed to are present.

There is no probative evidence to the contrary. Even if it is shown that the combinations of ingredients of the patentee that are those ingredients of the instant claims do not give antiplasticization, this will be taken as evidence supporting the above rejection under 35 USC 112 first paragraph. For the above reasons, this rejection is maintained.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Patrick D Niland/
Primary Examiner
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